

Claims

1. An apparatus for irrigating, supplying thermal energy to, and cleansing wounds, characterised in that it comprises
- 5 a) a fluid flow path, comprising
- i) a conformable wound dressing, having
- a backing layer which is capable of forming a relatively fluid-tight seal or closure over a wound and
- 10 at least one inlet pipe for connection to a fluid supply tube, which passes through and/or under the wound-facing face, and
- and at least one outlet pipe for connection to a fluid offtake tube, which passes through and/or under the wound-facing face,
- the point at which the or each inlet pipe and the or each outlet pipe passes through and/or under the wound-facing face forming a
- 15 relatively fluid-tight seal or closure over the wound,
- at least one inlet pipe being connected to a fluid recirculation tube, and
- at least one outlet pipe being connected to a fluid offtake tube: and
- ii) a means for fluid cleansing having at least one inlet port connected to
- 20 a fluid offtake tube and at least one outlet port connected to a fluid recirculation tube;
- b) a fluid reservoir connected by a fluid supply tube to an integer of the flow path (optionally or as necessary via means for flow switching between supply and recirculation);
- c) a device for moving fluid through the wound dressing and means for fluid
- 25 cleansing, and optionally or as necessary the fluid supply tube;
- d) the apparatus having means for supplying thermal energy to the fluid in the wound,
- and
- e) optionally means for bleeding the flowpath,
- 30 such that fluid may be supplied to fill the flowpath from the fluid reservoir via the fluid supply tube (optionally or as necessary via the means for flow switching) and recirculated by the device through the flow path.

2. An apparatus according to claim 1, characterised in that it comprises a means for supplying thermal energy to the fluid in the wound which is a heater and/or conductively heated component of the apparatus flow path in direct conductive contact with the irrigant and/or wound exudate.

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3. An apparatus according to claim 1, characterised in that it comprises a means for supplying thermal energy to the fluid in the wound which is a radiative heater of the irrigant fluid and/or wound exudate.

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4. An apparatus according to claim 1, characterised in that it comprises a means for supplying thermal energy to the fluid in the wound which is a conductively heated component of the apparatus flow path in direct conductive contact with the irrigant and/or wound exudate, in turn heated by irradiation from a radiative heater.

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5. An apparatus according to claim 1, characterised in that it comprises a means for fluid cleansing that is a single-phase system, in which the circulating fluid from the wound passes through the means for fluid cleansing and materials deleterious to wound healing are removed, without the circulating fluid coming into direct or indirect contact with another fluid in the means for fluid cleansing.

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6. An apparatus according to claim 1, characterised in that it comprises a means for fluid cleansing that is a two-phase system, in which the circulating fluid from the wound passes through the means for fluid cleansing and materials deleterious to wound healing are removed, by the circulating fluid coming into direct or indirect contact with another fluid in the means for fluid cleansing.

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7. An apparatus according to claim 3, characterised in that in the means for fluid cleansing, the circulating fluid from the wound and the other fluid in the means for fluid cleansing are separated by an integer which is selectively permeable to materials deleterious to wound healing.

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8. An apparatus according to claim 3, characterised in that in the means for fluid cleansing, the circulating fluid from the wound and the other fluid in the means for fluid cleansing are separated by an integer which is not selectively permeable to materials deleterious to wound healing, and the other fluid comprises and/or is in contact with a material that removes materials deleterious to wound healing.
9. A conformable wound dressing for use in an apparatus according to claim 1, characterised in that it comprises a backing layer with a wound-facing face which is capable of forming a relatively fluid-tight seal or closure over a wound and has
at least one inlet pipe for connection to a fluid supply tube, which passes through and/or under the wound-facing face, and
at least one outlet pipe for connection to a fluid offtake tube, which passes through and/or under the wound-facing face,
the point at which the or each inlet pipe and the or each outlet pipe passes through and/or under the wound-facing face forming a relatively fluid-tight seal or closure over the wound.
10. A method of treating wounds to promote wound healing using the apparatus for aspirating, irrigating and/or cleansing wounds according to claim 1.